IN THE CLAIMS

The claims are presented as follows:

1. (Original) A method for cardiac pacing, comprising:

measuring an intrinsic conduction delay between a stressed ventricular site and an earlier excited ventricular site during an intrinsic heartbeat referred to as a V-V interval;

delivering pacing pulses to the stressed ventricular site in accordance with a programmed pacing mode, wherein the pacing pulses are delivered after an AV pacing delay interval following an atrial sense or pace which is set in accordance with the measured V-V interval

2. (Original) The method of claim 1 wherein the AV pacing delay interval is set to equal a linear function of the V-V interval subtracted from a measured intrinsic AV delay interval.

3 (Original) The method of claim 1 further comprising changing the ventricular pacing site in accordance with activity level measurements reflective of metabolic demand so that the pacing site is alternated between one designed to produce hemodynamically more effective contractions when metabolic needs of the body are great to one designed for remodeling reversal when metabolic needs are less.

4. (Original) The method of claim 1 further comprising delivering pacing pulses to a plurality of ventricular sites as defined by a specified pulse output configuration and in accordance with a defined pulse output sequence which begins after the AV pacing delay interval following an atrial sense or pace.

5. (Original) The method of claim 4 further comprising adjusting the pulse output sequence in accordance with measurements of conduction delays that reflect regional variations in myocardial mass.

6. (Original) The method of claim 4 further comprising adjusting the pulse output sequence in accordance with thoracic impedance measurements that reflect regional variations in myocardial mass.

7. (Original) The method of claim 4 further comprising adjusting the pulse output sequence in accordance with thoracic impedance measurements that reflect variations in contraction sequence.

8. (Original) The method of claim 4 further comprising adjusting the pulse output sequence in accordance with activity level measurements reflective of metabolic demand so that the pulse output sequence is alternated between one designed to produce hemodynamically more effective contractions when metabolic needs of the body are great to one designed for remodeling reversal when metabolic needs are less.

9. (Original) The method of claim 1 wherein the ventricular pacing site and the earlier excited ventricular site are in the same ventricle.

10. (Original) The method of claim 1 wherein the ventricular pacing site and the earlier excited ventricular site are in opposite ventricles.

11. (Original) A cardiac rhythm management device, comprising:

a plurality of sensing channels for sensing intrinsic cardiac activity;

a pacing channel for delivering pacing pulses to a ventricular pacing site;

a controller for controlling the delivery of pacing pulses;

wherein the controller is programmed to measure an intrinsic conduction delay between a stressed ventricular site and an earlier excited ventricular site during an intrinsic heartbeat referred to as a V-V interval; and

wherein the controller is programmed to deliver pacing pulses to the stressed ventricular site in accordance with a programmed pacing mode, wherein the pacing pulses are delivered after an AV pacing delay interval following an atrial sense which is set in accordance with the measured V-V interval.

12. (Original) The device of claim 11 wherein the AV pacing delay interval is set to equal a linear function of the V-V interval subtracted from a measured intrinsic AV delay interval.

13 (Original) The device of claim 11 further comprising a plurality of pacing channels and wherein the controller is programmed to change the pacing channel used to deliver pacing pulses in accordance with activity level measurements reflective of metabolic demand so that the ventricular site at which pacing pulses are delivered is alternated between one designed to produce hemodynamically more effective contractions when metabolic needs of the body are great to one designed for remodeling reversal when metabolic needs are less.

14. (Original) The device of claim 11 further comprising:

a plurality of pacing channels;

wherein the controller is programmed to control the delivery of pacing pulses to a selected subset of the plurality of pacing channels in accordance with a programmed pacing mode; and,

wherein the controller is programmed deliver pacing pulses to a plurality of ventricular sites as defined by the selected subset of pacing channels and in accordance with a defined pulse output sequence which begins after the AV pacing delay interval following an atrial sense or pace.

15. (Original) The device of claim 14 wherein the controller is programmed to adjust the pulse output sequence in accordance with measurements of conduction delays that reflect regional variations in myocardial mass.

16. (Original) The device of claim 14 further comprising a thoracic impedance sensor and wherein the controller is programmed to adjust the pulse output sequence in accordance with thoracic impedance measurements that reflect regional variations in myocardial mass.

17. (Original) The device of claim 14 further comprising a thoracic impedance sensor and wherein the controller is programmed to adjust the pulse output sequence in accordance with thoracic impedance measurements that reflect variations in contraction sequence.

18. (Original) The device of claim 14 further comprising an exertion level sensor and wherein the controller is programmed to adjust the pulse output sequence in accordance with activity level measurements reflective of metabolic demand so that the pulse output sequence is alternated between one designed to produce hemodynamically more effective contractions when metabolic needs of the body are great to one designed for remodeling reversal when metabolic needs are less.

19. (Original) The device of claim 11 further comprising a pacing channel for pacing the atria and wherein the AV delay interval follows an atrial sense or pace.

20. (Original) The device of claim 11 wherein the controller is programmed to deliver a pacing pulse to the stressed ventricular site when triggered by a ventricular sense.